

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Environmental Assessment**

*Permitting and Compliance Division*  
*Water Protection Bureau*

**Name of Project:** ExxonMobil Billings Refinery

**Type of Project:** MPDES MT0000477 Permit Modification

**Location of Project:** T1N, R26E, All or parts of sections 24 and 25

**City/Town:** Billings

**County:** Yellowstone

**Description of Project:**

The ExxonMobil Billings refinery's current permit became effective November 1, 2003 after a contested case proceeding before the Board of Environmental Review. Included in the settlement agreement, was the option for the permittee to apply for a modification to Part D of the Montana Pollutant Discharge Elimination System permit. The permittee submitted application (December 2, 2003) for the following modifications to MPDES permit MT0000477.

The permittee requested modification to three sections of their permit:

1. Relocation of MPDES discharge Outfall 001 approximately 1,000 feet downstream from its current location. This modification is intended to enhance mixing in the Yellowstone River and provide a basis for granting a mixing zone for Outfall 001. The approximate latitude/longitude coordinates for the new outfall location are 45° 49' 21.053" N, 108° 25' 34.039" W. This will result in a change to the description of discharge points under Section I.B of our permit.
2. Approval of a standard, nearly instantaneous mixing zone for the relocated Outfall 001, and granting of appropriate mixing allowances for whole effluent toxicity (WET) based on the mixing characteristics at the new location. This will modify Section I.D.2 of the permit.
3. A modified frequency for WET testing as specified under section I.D.1 and I.D.2 of the permit to allow semi annual testing rather than quarterly testing at Outfall 001.

**Agency Action and Applicable Regulations:**

The proposed action is to modify and reissue MPDES permit MT0000477 to ExxonMobil Billing Refinery for the discharge of treated wastewaters from their facilities. The permit specifies effluent limitations, waste disposal requirements, and monitoring requirements. The

Department is issuing this permit under the authority of the Montana Water Quality Act 75-5-101 *et seq.* MCA, and the Montana Pollutant Discharge Elimination System rules (ARM 17.30.12 *et seq* and ARM 17.30.13 *et seq*).

### Summary of Issues:

The Department proposes to reissue the modified MPDES permit to limit the discharge of pollutants from wastewater from ExxonMobil's facilities. Issues of concern include: impacts to air quality, cultural resources, ground and surface water quality and quantity, threatened and endangered wildlife and vascular species, and impacts to the human environment.

### Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur

N = Not present or No Impact will likely occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] No impacts are expected in these areas for this action.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] Analysis during the permit modification showed no decline in beneficial uses or impairment to the environment. The proposed outfall will not cause exceedances to water quality standards, but will in fact aid in dissipating the effluent faster, thus minimizing any affect on the receiving water.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] No impacts are expected in these areas for this action.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] No impacts are expected in these areas for this action. Re-vegetation of disturbed areas will be short term, and minor.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] No impacts are expected in these areas for this action.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[Y] One threatened species; Bald Eagle, frequents the areas around Billings on a yearlong basis. Bald Eagles have been observed traveling through or foraging within the Exxon property. It is anticipated that reissuing the modified MPDES permit will not influence bald eagle numbers or activities.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] The areas disturbed by this action have been influenced by mans activities during the period the facility has been in operation. No additional impacts are expected in these areas for this action.

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] With the installation of the diffuser, no visible discharge will be apparent. This will enhance the visual aesthetics in the area. No impacts are expected in these areas for this action.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed?	[N] No additional demands to environmental resources will be realized by this action.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] No impacts are expected in these areas for this action.

<b>IMPACTS ON THE HUMAN ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] With the installation of the discharge diffuser, physical mixing and diffusion of the effluent will minimize any affect to human health or safety. No impacts are expected in these areas for this action.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] No impacts are expected in these areas for this action.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] No impacts are expected in these areas for this action.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No impacts are expected in these areas for this action.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No impacts are expected in these areas for this action.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] The permittee is required to adhere to all state and federal permitting requirements for the installation of the new diffuser in the receiving water. These agencies will require program specific measure to prevent impacts to the receiving water or local environ. No long term impacts are expected in these areas for this action.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] No impacts are expected in these areas for this action.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No impacts are expected in these areas for this action.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No impacts are expected in these areas for this action.

<b>IMPACTS ON THE HUMAN ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No impacts are expected in these areas for this action.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No impacts are expected in these areas for this action.
22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] No impacts are expected in these areas for this action.
22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[N] No impacts are expected in these areas for this action.
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[N] No impacts are expected in these areas for this action.

23. Description of and Impacts of other Alternatives Considered:

- A. No Action: Under the no action alternative, the facility would continue to discharge at the current location, which has limited flow in the low flow periods. The proposed outfall location would be denied. The mixing zone allowances for WET testing would be denied.
- B. Approval with modification: Under this alternative, the Department will prepare a fact sheet and a draft permit reflecting the requested modification to the MPDES permit. All permit conditions and limits will be based on current, effective regulations.

24. Summary of Magnitude and Significance of Potential Impacts: No unresolved impacts to the physical or human environment were identified.

25. Cumulative Effects: Analysis conducted during the permit development incorporated other sources upstream from the facility. Calculations for pollutants of concern accounted for these upstream sources.
26. Preferred Action Alternative and Rationale: The Department intends to issue the ExxonMobil modified permit. Through implementation of permit limits, monitoring of the effluent and reporting requirements, verification will be maintained that all beneficial uses are being maintained.

**Recommendation for Further Environmental Analysis:**

☐ EIS      ☐ More Detailed EA      ☒ No Further Analysis

Rationale for Recommendation: No unresolved impacts were identified in the environmental assessment.

27. Public Involvement:

This draft EA and draft MPDES permit action will be opened for public comment during a 30-day public comment period. It will be posted on the Department's web page at <http://www.deq.state.mt.ea.asp> or commenters may contact Dianne McKittrick at the Water Protection Bureau at (406) 444-2475. For copies of the Draft EA or to submit comments, write or call the Montana Department of Environmental Quality, Water Protection Bureau, PO Box 200901, Helena, MT 59620-0901, (406) 444-3080. All significant comments will be accepted and used in the formulation of the final permit if postmarked by the close of business October 18, 2006.

The Department maintains a list of persons who have expressed an interest in all environmental water quality related issues. The Department will send a copy of this document to all persons who have submitted their name, address, and telephone number to the Department for the purpose of being included on the water quality interested parties mailing list.

28. Persons and agencies consulted in the preparation of this analysis: DEQ/WPB

**EA Checklist Prepared By:**

James Lloyd  
(Name)

September 8, 2006  
Date

**Approved By:**

Bonnie Lovelace, Chief  
(Print: name & title)

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Signature

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Date